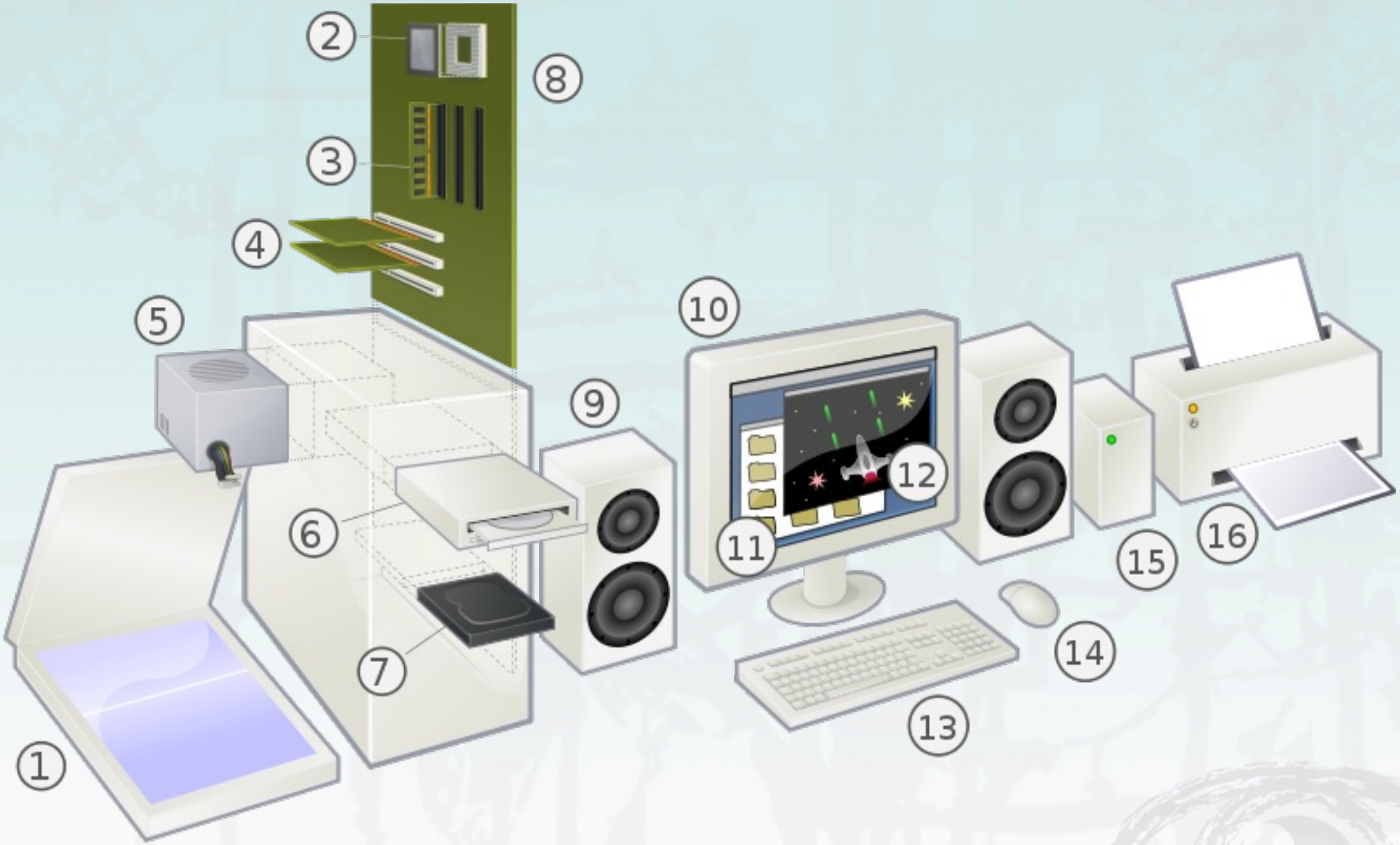
A Typical Desktop Computer Workstation



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Memory – Where your “Thoughts” are Stored

This is the temporary holding area where data is stored while it is being used or changed; the amount of RAM a computer has installed.

RAM (Short Term)

(random access memory)
is where programs that are being used currently by the processor to run the program are held. This clears when you lose power or shut down the computer. The more you have the more programs you can run. Think of it as the information on top of your desk.



ROM (Long Term)

ROM (read only memory) is where all programs on your computer are stored till needed. This is the hard drive; items stay stored here until you remove them. Think of this as the information that goes into the file cabinets.



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“The Brain’s” of the Operation

These are the parts that process and interpret information that will later be stored into memory.

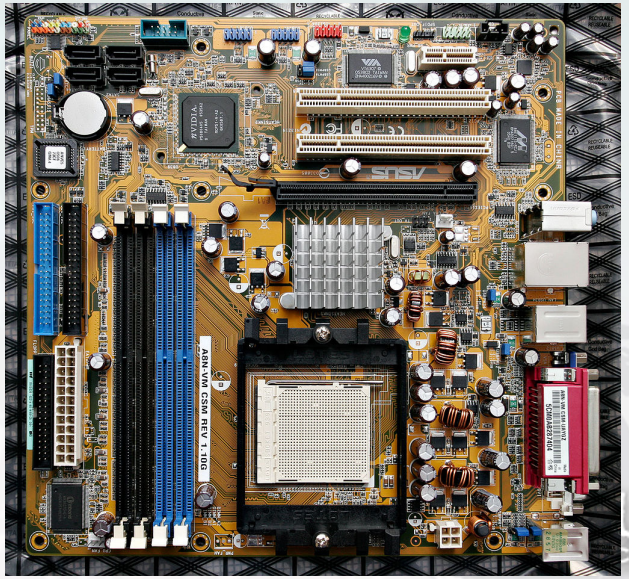
Processor

Central **P**rocessing **U**nit. Also known as a microprocessor, a CPU is the brains of a computer. To be more specific, a CPU fetches program instructions from RAM (input), interprets and processes it (execution) and then sends back the computed results so that the relevant components can carry out the instructions



Logic Board/Motherboard

A motherboard is the main circuit board inside a computer that connects the different parts of a computer together. It has sockets for the CPU, RAM and expansion cards (e.g. discrete graphics cards, sound cards, network cards, storage cards etc.)... and it also hooks up to hard drives, disc drives and front panel ports with cables and wires.



Graphics / Video Card

Think of a computer as a company with its own art department. When people in the company want a piece of artwork, they send a request to the art department. The art department decides how to create the image and then puts it on paper. The end result is that someone's idea becomes an actual, viewable picture.

A graphics card works along the same principles. The CPU, working in conjunction with software applications, sends information about the image to the graphics card. The graphics card decides how to use the pixels on the screen to create the image. It then sends that information to the monitor through a cable



The graphics card accomplishes this task using four main components:

- A **Motherboard** connection for data and power
- A **Processor (CPU)** to decide what to do with each pixel on the screen
- **Memory (RAM)** to hold information about each pixel and to temporarily store completed pictures
- A **Monitor** connection so you can see the final result

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Hard Drive – Storing your Memories

These are the parts that process and interpret information that will later be stored into memory.



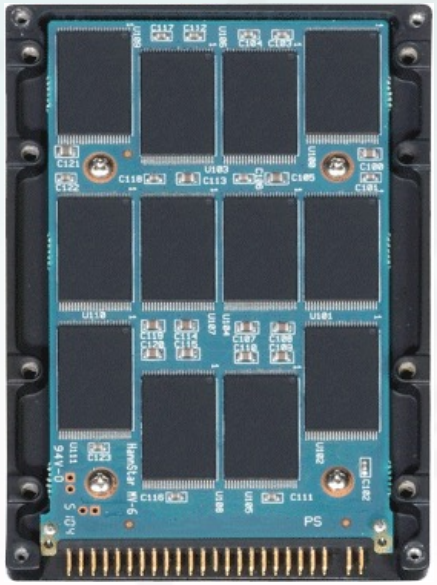
HARD DRIVE – Spinning wheel

PROS:

- Cheap
- Come in Large Sizes
- Readily Available

CONS:

- Delicate/Lots of Moving Parts
- Noisy / Runs Hot
- Lasts a few years maybe more



SOLID STATE DRIVE – Flash/Chip Memory

PROS:

- Very Reliable – No moving parts
- Quiet with no fan
- Small and compact makes for smaller computers

CONS:

- Very expensive
- Hard to find in stock
- Smaller sizes

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